



# **STIC Search Report**

## **EIC 1700**

**STIC Database Tracking Number: 170207**

**TO: Michael Alexander**  
**Location: REM 6C19**  
**Art Unit : 1742**  
**November 4, 2005**

**Case Serial Number: 10/662197**

**From: Les Henderson**  
**Location: EIC 1700**  
**REM 4B28 / 4A30**  
**Phone: 571-272-2538**

**Leslie.henderson@uspto.gov**

### **Search Notes**

Only the inventor was found in the search for the alloy you requested and for Claim 1.

On widening the parameters, only three other abstracts were found when searching only a gold, zinc and nickel alloy.

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(FILE 'HOME' ENTERED AT 09:10:59 ON 04 NOV 2005)

FILE 'HCAPLUS' ENTERED AT 09:11:09 ON 04 NOV 2005

E US20050100471/PN

L1 1 S US20050100471/PN  
SEL RN

FILE 'REGISTRY' ENTERED AT 09:12:54 ON 04 NOV 2005

L2 6 S E1-E6  
L3 939 S 90.9-93 AU/MAC  
L4 16093 S 6-7.5 NI/MAC  
L5 12350 S 0.4-1.5 ZN/MAC  
L6 55713 S 0.4-1.5 CU/MAC  
L7 11825 S .5>=CO/MAC  
L8 56 S L3 AND L4  
L9 4 S L8 AND L5  
L10 3 S L9 AND L6  
L11 3 S L10 AND L7  
L12 3 S L11 AND L2  
L13 480 S 91.67 AU/MAC  
L14 2585 S 0.66 ZN/MAC  
L15 7985 S 7 NI/MAC  
L16 12855 S 0.6 CU/MAC  
L17 3841 S 0.07 CO/MAC  
L18 2 S L14 AND L15 AND L16 AND L17 AND L13  
L19 3 S L12 OR L18

FILE 'HCAPLUS' ENTERED AT 09:55:23 ON 04 NOV 2005

L20 1 S L19  
L21 1 S L18  
L22 1 S L20 OR L21

FILE 'REGISTRY' ENTERED AT 09:56:59 ON 04 NOV 2005

L23 1664 S 89-95 AU/MAC  
L24 20838 S 0.1-2 ZN/MAC  
L25 103387 S 0.1-2 CU/MAC  
L26 13638 S 0.8>=CO/MAC  
L27 43959 S 4-9 NI/MAC  
L28 3 S L23 AND L24 AND L25 AND L26 AND L27  
L29 3 S L19 AND L28  
L30 3 S L23 AND L24 AND L25 AND L27  
L31 6 S L23 AND L24 AND L27  
L32 3 S L31 NOT L19

FILE 'HCAPLUS' ENTERED AT 10:21:15 ON 04 NOV 2005

L33 3 S L32

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L2 6 SEA FILE=REGISTRY ABB=ON PLU=ON (851462-50-5/BI OR  
851462-53-8/BI OR 851462-56-1/BI OR 851462-59-4/BI OR  
851462-62-9/BI OR 851462-65-2/BI)

L3 939 SEA FILE=REGISTRY ABB=ON PLU=ON 90.9-93 AU/MAC

L4 16093 SEA FILE=REGISTRY ABB=ON PLU=ON 6-7.5 NI/MAC

L5 12350 SEA FILE=REGISTRY ABB=ON PLU=ON 0.4-1.5 ZN/MAC

L6 55713 SEA FILE=REGISTRY ABB=ON PLU=ON 0.4-1.5 CU/MAC

L7 11825 SEA FILE=REGISTRY ABB=ON PLU=ON .5>=CO/MAC

L8 56 SEA FILE=REGISTRY ABB=ON PLU=ON L3 AND L4

L9 4 SEA FILE=REGISTRY ABB=ON PLU=ON L8 AND L5

L10 3 SEA FILE=REGISTRY ABB=ON PLU=ON L9 AND L6

L11 3 SEA FILE=REGISTRY ABB=ON PLU=ON L10 AND L7

L12 3 SEA FILE=REGISTRY ABB=ON PLU=ON L11 AND L2

L13 480 SEA FILE=REGISTRY ABB=ON PLU=ON 91.67 AU/MAC

L14 2585 SEA FILE=REGISTRY ABB=ON PLU=ON 0.66 ZN/MAC

L15 7985 SEA FILE=REGISTRY ABB=ON PLU=ON 7 NI/MAC

L16 12855 SEA FILE=REGISTRY ABB=ON PLU=ON 0.6 CU/MAC

L17 3841 SEA FILE=REGISTRY ABB=ON PLU=ON 0.07 CO/MAC

L18 2 SEA FILE=REGISTRY ABB=ON PLU=ON L14 AND L15 AND L16  
AND L17 AND L13

L19 3 SEA FILE=REGISTRY ABB=ON PLU=ON L12 OR L18

L20 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L19

L21 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L18

L22 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 OR L21

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L22 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:411024 HCAPLUS

DOCUMENT NUMBER: 142:467391

TITLE: White gold alloys of 22-karat type with  
formability for jewelry

INVENTOR(S): Taylor, Arthur D.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 4 pp.  
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
US 2005100471	A1	20050512	US 2003-662197	2003 0912

PRIORITY APPLN. INFO.:			
	US 2002-410671P	P	2002 0913

AB The 22-karat Au alloys having good formability and decorative white color contain Ni 6.0-7.5, Zn 0.4-1.5, Cu 0.4-1.5, Co 0.02-0.50, and Au 90.9-93.0% by weight. The Au melt is typically treated for alloying with 8.33% of the master alloy containing Ni 72-90, Zn 4.8-18, Cu 4.8-18, and Co 0.24-6.0%. The typical Au alloy for manufacture of white jewelry (without color control by finish

electroplating with Pd) contains Ni 7.00, Zn 0.66, Cu 0.60, and Co 0.07%. The Au-alloy ingot can be rolled without cracks to 50% of the original thickness, followed by annealing for 15 min at 1425° F to restore workability for another 50% reduction for strip or wire manufacture

IT **851462-50-5 851462-53-8 851462-56-1**

RL: TEM (Technical or engineered material use); USES (Uses)  
(alloying of; white gold alloys of 22-karat type with formability for jewelry manufacture)

RN 851462-50-5 HCAPLUS

CN Gold alloy, base, Au 91-93, Ni 6-7.5, Cu 0.4-1.5, Zn 0.4-1.5, Co 0-0.5  
(9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	91 - 93	7440-57-5
Ni	6 - 7.5	7440-02-0
Cu	0.4 - 1.5	7440-50-8
Zn	0.4 - 1.5	7440-66-6
Co	0 - 0.5	7440-48-4

RN 851462-53-8 HCAPLUS

CN Gold alloy, base, Au 91-93, Ni 6-7.5, Zn 0.5-1, Cu 0.4-0.8, Co 0-0.1  
(9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	91 - 93	7440-57-5
Ni	6 - 7.5	7440-02-0
Zn	0.5 - 1	7440-66-6
Cu	0.4 - 0.8	7440-50-8
Co	0 - 0.1	7440-48-4

RN 851462-56-1 HCAPLUS

CN Gold alloy, base, Au 92,Ni 7,Zn 0.7,Cu 0.6,Co 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	92	7440-57-5
Ni	7	7440-02-0
Zn	0.7	7440-66-6
Cu	0.6	7440-50-8
Co	0.1	7440-48-4

IC ICM C22C005-02

ICS C22C019-03

INCL 420457000; 420512000

CC 56-3 (Nonferrous Metals and Alloys)

IT **851462-50-5 851462-53-8 851462-56-1**

RL: TEM (Technical or engineered material use); USES (Uses)  
 (alloying of; white gold alloys of 22-karat type with  
 formability for jewelry manufacture)

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L2 6 SEA FILE=REGISTRY ABB=ON PLU=ON (851462-50-5/BI OR  
 851462-53-8/BI OR 851462-56-1/BI OR 851462-59-4/BI OR  
 851462-62-9/BI OR 851462-65-2/BI)

L3 939 SEA FILE=REGISTRY ABB=ON PLU=ON 90.9-93 AU/MAC

L4 16093 SEA FILE=REGISTRY ABB=ON PLU=ON 6-7.5 NI/MAC

L5 12350 SEA FILE=REGISTRY ABB=ON PLU=ON 0.4-1.5 ZN/MAC

L6 55713 SEA FILE=REGISTRY ABB=ON PLU=ON 0.4-1.5 CU/MAC

L7 11825 SEA FILE=REGISTRY ABB=ON PLU=ON .5>=CO/MAC

L8 56 SEA FILE=REGISTRY ABB=ON PLU=ON L3 AND L4

L9 4 SEA FILE=REGISTRY ABB=ON PLU=ON L8 AND L5

L10 3 SEA FILE=REGISTRY ABB=ON PLU=ON L9 AND L6

L11 3 SEA FILE=REGISTRY ABB=ON PLU=ON L10 AND L7

L12 3 SEA FILE=REGISTRY ABB=ON PLU=ON L11 AND L2  
L13 480 SEA FILE=REGISTRY ABB=ON PLU=ON 91.67 AU/MAC  
L14 2585 SEA FILE=REGISTRY ABB=ON PLU=ON 0.66 ZN/MAC  
L15 7985 SEA FILE=REGISTRY ABB=ON PLU=ON 7 NI/MAC  
L16 12855 SEA FILE=REGISTRY ABB=ON PLU=ON 0.6 CU/MAC  
L17 3841 SEA FILE=REGISTRY ABB=ON PLU=ON 0.07 CO/MAC  
L18 2 SEA FILE=REGISTRY ABB=ON PLU=ON L14 AND L15 AND L16  
AND L17 AND L13  
L19 3 SEA FILE=REGISTRY ABB=ON PLU=ON L12 OR L18  
L23 1664 SEA FILE=REGISTRY ABB=ON PLU=ON 89-95 AU/MAC  
L24 20838 SEA FILE=REGISTRY ABB=ON PLU=ON 0.1-2 ZN/MAC  
L27 43959 SEA FILE=REGISTRY ABB=ON PLU=ON 4-9 NI/MAC  
L31 6 SEA FILE=REGISTRY ABB=ON PLU=ON L23 AND L24 AND L27  
L32 3 SEA FILE=REGISTRY ABB=ON PLU=ON L31 NOT L19  
L33 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L32

=> d l33 1-3 ibib abs hitstr hitind

L33 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1976:51511 HCAPLUS  
DOCUMENT NUMBER: 84:51511  
TITLE: Electroplating bright white gold alloy  
coatings  
INVENTOR(S): Greenspan, Lawrence  
PATENT ASSIGNEE(S): Engelhard Minerals and Chemicals Corp., USA  
SOURCE: U.S., 5 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
US 3915814	A	19751028	US 1973-424473	1973 1213
JP 49065341	A2	19740625	JP 1973-93790	1973 0821
IT 990393	A	19750620	IT 1973-52120	1973 0822

FR 2196908 A1 19740322 FR 1973-30594

1973  
0823

AU 7359550 A1 19750227 AU 1973-59550

1973  
0823

PRIORITY APPLN. INFO.:

US 1972-283348

A2

1972  
0824

AB A new aqueous Au plating solution deposits a bright white Au alloy which

has a pleasing appearance and is stain and corrosion resistant. Ni and Zn codeposit with the Au to form a coating containing Au 82-90, Ni 8-12, and Zn 2-6%. The plating thickness is 5-50 + 10-6 in., with Au content of 19-21 carats and Knoop hardness of 200-300. A suitable bath comprises KAu(CN)<sub>2</sub> 1.2, K<sub>2</sub>Ni(CN)<sub>4</sub> 10.0, K<sub>2</sub>Zn(CN)<sub>4</sub> 0.2, K<sub>2</sub>HPO<sub>4</sub> 20.0, and free KCN 3.5 g/l., with KOH to adjust the pH to 10. The bath is operated at 60° and c.d. 70 A/ft<sup>2</sup>. The deposits require no buffing or other mech. operations to further enhance their brightness for use as flatware.

IT 57938-58-6

RL: PRP (Properties)

(electroplating of, cyanide bath for bright)

RN 57938-58-6 HCAPLUS

CN Gold alloy, base, Au 83-90, Ni 8-11, Zn 2-5.9 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	83 - 90	7440-57-5
Ni	8 - 11	7440-02-0
Zn	2 - 5.9	7440-66-6

IC C25D

INCL 204040000

CC 72-6 (Electrochemistry)

IT 57938-58-6

RL: PRP (Properties)

(electroplating of, cyanide bath for bright)

L33 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1975:502200 HCAPLUS

DOCUMENT NUMBER: 83:102200

TITLE: Gold alloys  
 INVENTOR(S): Kasai, Kazutomo  
 PATENT ASSIGNEE(S): Suwa Seikosha Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 50025425	A2	19750318	JP 1973-77736	

1973  
0710

PRIORITY APPLN. INFO.: JP 1973-77736 A  
 1973  
0710

AB The Au alloys contain Fe 0.5-9, Cu 3-30, Zn 0.1-20, and optionally Ni and/or Mn 0.1-10%. After age-hardening, Vickers hardness is 212-452. Hardness increases with increasing Fe content. The alloys are suitable for ornaments, fountain pens, and elec. contacts.

IT 57622-25-0

RL: USES (Uses)  
 (age hardenable)

RN 57622-25-0 HCAPLUS

CN Gold alloy, base, Au 31-96, Cu 3-30, Zn 0.1-20, Mn 0.1-10, Ni 0.1-10, Fe 0.5-9 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	31 - 96	7440-57-5
Cu	3 - 30	7440-50-8
Zn	0.1 - 20	7440-66-6
Mn	0.1 - 10	7439-96-5
Ni	0.1 - 10	7440-02-0
Fe	0.5 - 9	7439-89-6

INCL 10L24

CC 56-2 (Nonferrous Metals and Alloys)  
 Section cross-reference(s): 76



IT 57622-25-0

RL: USES (Uses)  
(age hardenable)

L33 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1974:140580 HCAPLUS

DOCUMENT NUMBER: 80:140580

TITLE: Electroplating of white gold

INVENTOR(S): Greenspan, Lawrence

PATENT ASSIGNEE(S): Engelhard Minerals and Chemicals Corp.

SOURCE: Ger. Offen., 9 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

## PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
DE 2342691	A1	19740307	DE 1973-2342691	1973 0823
JP 49065341	A2	19740625	JP 1973-93790	1973 0821
IT 990393	A	19750620	IT 1973-52120	1973 0822
FR 2196908	A1	19740322	FR 1973-30594	1973 0823
AU 7359550	A1	19750227	AU 1973-59550	1973 0823
PRIORITY APPLN. INFO.:			US 1972-283348	A 1972 0824

AB White Au coatings of 381-457  $\mu$  thickness on Ag or Ni-plated stainless steel, resistant to staining and corrosion in use as e.g. tablewares, contained 8-11.2% Ni, 2-5.9% Zn, and balance Au and were made by electroplating 2.5-3 min at 4.3-7.5 A/dm<sup>2</sup> and 60° from a bath of pH 10 containing Au as KAu(CN)<sub>2</sub> 1.2-1.75, Ni as K<sub>2</sub>Ni(CN)<sub>4</sub> 8.0-10.0, Zn as K<sub>2</sub>Zn(CN)<sub>4</sub> 0.05-0.2, K<sub>2</sub>HPO<sub>4</sub> 20.0, and

IT KCN 3.5-5.0 g/l.  
**51882-72-5**  
RL: PRP (Properties)  
(electroplating of, on silver and stainless steel, for  
tableware)  
RN 51882-72-5 HCAPLUS  
CN Gold alloy, base, Au 83-90, Ni 8-11, Zn 2-6 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	83 - 90	7440-57-5
Ni	8 - 11	7440-02-0
Zn	2 - 6	7440-66-6

IC C23B  
CC 77-6 (Electrochemistry)  
IT **51882-72-5**  
RL: PRP (Properties)  
(electroplating of, on silver and stainless steel, for  
tableware)

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